

easy it would be to fix up a pen for them in the mow of the barn suggested, at slight expense; while in the masonry basement it would be inconvenient or impracticable.

PLAN OF DOUBLE BUILDING.

The foregoing article and calculations being submitted to Mr. McIntyre, he expressed his opinion that the relative estimates of cost were substantially correct, though, suggesting that the allowance for carpenter work was perhaps a little high, while the estimate for some of the longer pieces of material was perhaps slightly under the mark. On the whole, the calculation appealed to him as fair and reasonable. Upon the subject of advantages and disadvantages, he referred to the durability of the concrete wall, and stated that he had not found the approach to his basement barn a very serious inconvenience. On the other hand, he recognized frankly the advantages set forth on behalf of the double building, and kindly offered to prepare drawings to illustrate the description of a double barn set on the level, and built with a plank frame. The cuts appearing in connection with this article were made from the drawings Mr. McIntyre submitted. The ground-floor plan shows the double barn in L shape, each section 40 x 55 feet. The cattle stable shows stalls for 16 head on the south side, allowing not quite 7 feet for each double stall. The pen on the north side could be used to run cattle loose in pens and box stalls. The horse stable shows five single stalls and one box stall, and is located in the south-west corner of the barn. The granary (not allowed for in estimate of cost) has a capacity of about 1,500 bushels, but has only one window. The hay mow, in the north end of this barn affords valuable protection from wind to both horse and cattle stables. In one of the figures, a diagram view of the manger is also shown.

MODIFICATIONS OF FRAME FOR DOUBLE BARN ON LEVEL.

Below are Mr. McIntyre's comments on the framing of the double barn, according to his own drawings.

Editor "The Farmer's Advocate":

Although the plank-frame barn is best adapted for a high foundation wall, still, with a few minor changes, it can be made to suit the low wall.

In building an L-shaped double barn and stable, one end bent of the stable can be built the same as the middle bents, and joined with and forming part of the side frame of the barn, thus reducing the cost considerably (see Fig. 2). The tie girt in the frame for high wall is in this frame removed, and its place taken by a trim beam to carry the overlays (Fig. 3). The trim beam can be made of three 2 x 10-inch planks, one passing between the two sections of the wall and the purline posts, and one on each outside face of same, and bolted through with 1/2-inch bolts, the beam to be supported with posts at such intervals as the plan of the stables will allow (see Fig. 3).

In case of a door being required in the gable end of stable, for hay-fork track, it would be necessary to do away with the top part of the center post. The bent could be strengthened by means of a beam, as described by Mr. Gilmore in your issue of Feb. 20th, 1908. See, also, photo, in your issue of Jan. 7th, of plank-frame barn built by the same man.

In the end bent it would also be necessary to have a beam to carry the overlays. It could be made by spiking 2 x 12-inch planks on both in and out side of posts, and supporting with short posts, as shown in Fig. 4. In the absence of collar girts, the purline posts could be braced, as shown in Fig. 4.

Lambton Co., Ont.

THE DAIRY

Depends on the Man.

Speaking at Brantford, C. C. James exhorted the dairymen to make all the money out of his business that he honestly could, reminding him, however, that after all the great secret was in the man and his equipment, and the person who would succeed in the dairy business must get down to the soil. Dairying isn't a simple matter. It takes more skill to turn the products of the air, water and soil into butter and cheese than is demanded by the most intricate manufacturing process in the City of Brantford. We must study the soil and the products of the soil, the animals and the products of the animals, and, finally, the making of butter and cheese. Could we increase the quantity and improve the quality of our crops, weed out the poor cows, take care of the milk and pay strict attention to the manufacturing processes, we'd catch some of these dollars we're chasing, and our dairy products would be worth 40, 50 and 60 millions of dollars, and this money being widely distributed and re-employed, would get into the channels of commerce and quicken business all around.

Dairy Test at Guelph.

Editor "The Farmer's Advocate":

I have been waiting, expecting you to correct your error in reporting the dairy tests at Guelph Winter Fair, last December. I cannot quite understand you people up West, the way some of you delight in boosting the Holstein cow. I suppose you are taking your cue from Professor Dean. In your report, in "The Farmer's Advocate," you give the Holstein cow credit with giving milk testing as high as 7 1/2 per cent. butter-fat. This is surely a mistake, and very unfair to the other competing breeds. And in your note on the exhibit of cows at dairy tests, a reader would be sure to take it for granted that the Holsteins were winners, all other breeds not being in it. Is it fair to look upon milk only as a correct test of a profitable cow? I think not. I also think that the Guelph Fair Board, assisted as they are by our Government, ought to set about at once to make this dairy test fair to all breeds, making butter-fat and solids, and cost of production, the test. The American people have for years been testing the profit value by butter-fat test, after counting the cost of feed consumed, as the proper way to find the best breed. At the Chicago and St. Louis World's Fairs, especially, this was done, and at both those fairs Jerseys came out conquerors. At St. Louis, in 1904, only one Holstein cow got in out of sixteen prizes.

Now, let us let in some light on the testing at Guelph, as between the best, first-prize Holstein, and the only Jersey, charging the cost of food consumed in their three-day test. I think I can show that some of those Holsteins that took prizes did not pay their board bill while being tested by a butter-fat and solids test. I will take my figures and comparisons from a book issued by the St. Louis Fair Board of 1904. I might say here that the cost of the food for a three-days' test could be ascertained, as well as for a longer trial, if it were wanted, though, no doubt, nothing less than the whole year is a proper test. The figures I quote, as correct, of the Guelph test, show that Mr. Haley's Holstein cow, first prize, gave 203 pounds of milk in three days, testing 3.7 per cent. butter-fat, producing 7.511 pounds butter-fat in three days, at, say, 30 cents per pound, \$2.25.

Mr. Bull's Jersey cow gave 130 pounds in three days, testing 4.7 per cent. butter-fat, producing 6.110 pounds butter-fat in three days, at 30 cents per pound, \$1.83.

Cost of food of Holstein cow: Meal, 22 pounds per day; three days, 66 pounds; at 1 1/2 cents per pound, 99 cents; 57 pounds per day other than meal for three days, 171 pounds; at 1/2 cent per pound, 85 cents; total cost, \$1.84.

Cost of food for Jersey: Meal, 17 1/2 pounds per day, for three days, 52 1/2 pounds; at 1 1/2 cents per pound, 78 1/2 cents; food other than meal, 37 pounds per day, for three days, 111 pounds; at 1/2 cent per pound, 55 1/2 cents; total, \$1.34 1/2.

Holstein—Three days' butter-fat, \$2.25; cost of food, \$1.84; profit, 41 cents.

Jersey—Three days' butter-fat, \$1.83; cost of food, \$1.34 1/2; profit, 49 cents.

Thus, you see, by even a three-days' correct test, where the Jersey stands; and if it was for a year, where would your best Holstein be? As I said, I have taken my figures of the food consumed from the amount of the two cows, Loretta D., first-prize Jersey cow at St. Louis Fair, and the fifth-prize Holstein cow, Shadybrook Gerben. Those weights I have used are the weights they each consumed per day; and if I had taken the fourth-prize Jersey cow, instead of Loretta D., I would have had 6 cents better showing per day. Also, if I had taken Mr. Rice's 2.56 and 2.9 per cent. butter-fat cows, I don't know where the Jersey would have stood. And my idea is that, from the poor test the lone Jersey made at Guelph (4.7 per cent.), she must have been overfed, which would reduce her test. I don't believe I have a Jersey in my herd that tests as low as 4.7. I had an expert from the College test my herd last year, and he made them to average 5.9 per cent. butter-fat.

T. PORTER.

[Note.—Our correspondent is himself in error, in stating that our report gave the butter-fat percentage of the winning cow as 7.59, as our report was copied from the official statement of the test, and it was plainly shown that these figures represented the pounds of butter-fat, not the percentage, which, when the pounds of milk and butter-fat are given, is easily ascertainable, and which, in the case of Mr. Haley's Holstein cow, was 3.7 per cent., and in the case of the Jersey cow 4.7 per cent. And, in fact, in our comment on the test, we stated that the percentage of fat of the winning cow was 3.73. The charge that we favor the Holsteins is scarcely fair, in view of the fact that we have published in the columns, in the last few months, a number of the world's highest records of production of Jersey cows. We quite agree with Mr. Porter that the fair test is one in which the amount and cost of feed consumed is taken into account. But we are not "running the show," and we don't think we should be held responsible for the test, in which the test is conducted. Editor.]

Average \$82.32 per Cow.

Editor "The Farmer's Advocate":

Replying to your request for particulars as to how our herd was handled, which obtained a standing of sixth place in the dairy-herd competition, I may say that, as we had no intention of entering the competition until October, our herd were not cared for nor fed as they otherwise would have been. Our herd consisted of eight head, five cows, and one three-year-old and two two-year-old heifers, five being pure-bred and three grade Holsteins. We sent to the Mount Pleasant cheese factory, from May 1st to October 31st, 48,740 pounds of milk, or an average of 6,090 pounds each. The total amount of money received was \$445.82, or an average of \$74.30 per month, making an average of \$9.30 per cow each month. From their dates of freshening until December 31st, the herd have averaged a fraction better than 9,000 pounds each, or a total of 72,002 pounds.

The average price per cwt. of milk was 91.47 cents; 72,002 pounds milk, at 91.47 cents, would net me \$658.60 for the season, or an average of \$82.32 per cow. One of our cows did not freshen until May 24th, which, of course, lessened our amount of milk for the test, as we had only the seven cows through May, while we were charged with eight. In regard to feed and care, I would say that, as soon after freshening as circumstances would permit, they were fed two quarts oat and pea meal, one quart bran, one pint oil cake, from 15 to 20 pounds pulped mangels twice each day, and what mixed hay or fodder corn they would clean up nicely three times daily, until they went on the pasture, when they were fed nothing but one quart of oat and barley meal each morning and night, until Sept. 21st. Then we commenced feeding fodder corn once a day, until September 28th, when they were put in the stable and fed what fodder they needed, with the same ration of meal and a few roots; and thus they are yet, and will continue until freshening again. Through the winter we feed oat straw for the noon meal, and they seem to relish the change. We have neither a silo nor alfalfa as yet, but intend trying for a stand of nine acres of alfalfa this spring.

FRED V. WOODLEY.

Dairying in Brockville District.

Editor "The Farmer's Advocate":

North Augusta Cheese Factory last season ran only from May 1st until November 1st. Owing to the extreme drouth in this section of country, the milk flow decreased at a rapid rate towards the latter part of the season. Farmers had to commence feeding their stock in August, and continued the remainder of the fall; and for that reason a great many cattle were sold, some going to the butcher's block, and more as canners. The former were not in fit condition for beef, but they answered the purpose, on account of the low price they were purchased for. Beef should be beef; canners should be canners; and, until farmers learn to make first-class beef, they will not raise the standard of farming in this country to the level it ought to occupy.

On account of the dairy herds being lessened in number to correspond with the feeds in the barns, we will certainly look forward to the springtime, when those dairy cattle which are left will sally forth from their winter quarters, looking fat, sleek and contented, feeling that they have been well cared for, and ready to respond in the milk pail from 25 to 40 per cent. better than they have ever done before.

Remember, brother farmers, they will do this, without a doubt, if you will see to it that they get all the feed they can consume; and why should they not? In the Brockville district, the dairy cow is our stand-by. She is the queen of our farms—the mortgage-lifter of the present day.

How could we be expected to do the work we have to do if we were only half-fed. By all means feed your cows.

Now is the time to feed the rough feeds, if you have any, such as straw, marsh hay, etc., as the cows have been let go dry, and, towards spring, when they will be coming into milk again, you must have the best feed around the place to give them, for it is the feed that counts.

I was talking to a neighbor the other day, who said, when his brother was around home, a couple of years ago, he wanted him to sell all the cows they had and buy good ones, but he said no; he believed they were good cows, if they were properly cared for. The brother went away, and, for the last two years, by keeping fewer cows, and feeding them better, he has increased the flow of milk 20 per cent., and has six cows now than they then had, so you see from that what good will do.

Also, a word of warning against turning cattle out on a warm stable and letting them stand for hours on the sunny side of the barn, chilled and humped up with the cold. This thing is done by a great many farmers, and should be discontinued, as it is positively detrimental to the cow. If you have to let them out to clean